**SSS** 

Bldg./Room

الاهي <u>حا</u>

U. S. DEPARTMENT OF COMMERCE

Organization\_

COMMISSIONER FOR PATENTS

**ALEXANDRIA, VA 22313-1450** 

P.O. BOX 1450

MAILED FROM ZIP CODE 223/4

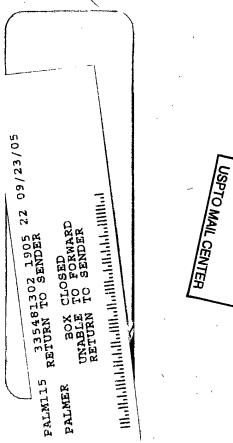
**BEST AVAILABLE COPY** 

RECEIVED

# AN EQUAL OPPORTUNITY EMPLOYER

F UNDELIVERABLE RETURN IN TEN DAYS

OFFICIAL BUSINESS







# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO		
10/649,357	08/26/2003	John M. Palmer		4176		
7	590 08/04/20	5 -CEIVED	EXAM	INER		
John M. Palmer, Jr. P.O. Box 115	er, Jr.	RECEIVED OIPE/IAP SEP 2 7 2005	NELSON, JAMES T			
Lutz, FL 335	48		ART UNIT	PAPER NUMBER		
		SEP Z 7 200	3637			
			DATE MAILED: 08/04/200	5		

Please find below and/or attached an Office communication concerning this application or proceeding.

		1			
·		Application	on No.	Applicant(s)	
Office Action Summary		10/649,35	7	PALMER ET AL.	
		Examiner		Art Unit	
		James T. I		3637	
T Period for R	he MAILING DATE of this communi eply	cation appears on the	cover sheet with the c	orrespondence address	
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).					
Status				·	
1)□ Re	sponsive to communication(s) file	d on			
·		b)⊠ This action is n	on-final.		
•	nce this application is in condition to seed in accordance with the practic				
Disposition	of Claims				
4a) 5)□ Cla 6)⊠ Cla 7)□ Cla	4) Claim(s) 1-8 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) Claim(s) is/are allowed.  6) Claim(s) 1-8 is/are rejected.  7) Claim(s) is/are objected to.  8) Claim(s) are subject to restriction and/or election requirement.				
Application	Papers				
9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority und	er 35 U.S.C. § 119				
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>					
2) Notice of 3) Informati	References Cited (PTO-892) Draftsperson's Patent Drawing Review (Pon Disclosure Statement(s) (PTO-1449 or b(s)/Mail Date		4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal F 6) Other:		

Application/Control Number: 10/649,357

Art Unit: 3637

### **DETAILED ACTION**

# Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether the Applicant is claiming an umbrella support device or an umbrella support device in combination with a mower structure. If the Applicant intends to claim only the umbrella support, all recitation of the combination must be removed. If the Applicant intends to claim the combination, the preamble of the claims should be amended to be consistent with the language in the body of the claims.
- 3. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In claims 1 and 8, the limitation of "operator's legs" and "operator's hands" specifically limits the claim to particular part of the human body.
  Since people come in all different shapes, sizes, abilities, and characteristics, the scope of the claim is unclear.
- 4. Claim 1 recites the limitations "said operator's legs" and "said operator's hands" in line8. There is insufficient antecedent basis for these limitations in the claim.
- 5. Claim 2 recites the limitation "said operator" in line 12. There is insufficient antecedent basis for this limitation in the claim.
- 6. Claim 8 recites the limitations "said operator" in line 26 and "said operator's hands" in line 28. There is insufficient antecedent basis for this limitation in the claim.

Application/Control Number: 10/649,357

Art Unit: 3637

7. Regarding claim 4, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

# Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The limitations of "operator's legs" and "operator's hands" specifically limit the claims to particular parts of the human body. A claim directed to or including within its scope a human being or attributes of a human being is not patentable subject matter. See MPEP §2105 and 1077 OG 24 (April 21, 1987).

# Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 11. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by the Japanese document '557. In Figs. 1, 2 and 4, the document shows an umbrella support device mounted in front of a vehicle seat (7) comprising an offset frame (20) with an upper end (10) configured to rotationally receive the lower end of an umbrella's shaft (A1), a lower end pivotally mounted (32) to the vehicle allowing the umbrella to pivot forward and aft, locking means (32a) to secure the offset frame in a desired position,

Application/Control Number: 10/649,357

Art Unit: 3637

spindle means in the upper end (10) providing for rotation and vertical adjustment of the umbrella shaft (A1), and an umbrella (A).

12. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Pranke. In Figs. 1 and 2, Pranke shows an umbrella support device mounted in front of a vehicle seat (2) comprising an offset frame (20) with an upper end configured to rotationally receive the lower end of an umbrella's shaft (13), a lower end pivotally mounted to the vehicle allowing the umbrella to pivot forward and aft (15), locking means to secure the offset frame in a desired position (19, 21, 22), spindle means included in the offset frame (20) providing for rotation and vertical adjustment of the umbrella shaft, and an umbrella (14).

### Conclusion

- 13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rounds, Tosso, Williams, Garrett, Campomar, Zent, Grundman, Allee, Matusek, and McFarlane all describe means for holding an umbrella. Blaugrund and Krizman describe means for holding an antenna.
- 14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James T. Nelson whose telephone number is (571) 272-1491. The examiner can normally be reached on M-F 8:30am 5:00pm.
- 15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Page 5

Application/Control Number: 10/649,357

Art Unit: 3637

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JTN 07/15/2005

> LANNA MAI SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3600

lamama

# Notice of References Cited

Application/Control No. 10/649,357	Reexamination	Applicant(s)/Patent Under Reexamination PALMER ET AL.		
Examiner	Art Unit			
James T. Nelson	3637	Page 1 of 1		

# U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	Α	US-184,429	11-1876	Rounds, William	248/515
	В	US-351,669	10-1886	Tosso, Hippolyte	248/515
	C	US-902,459	10-1908	Williams, Jacob et al	248/515
	D	US-970,751	09-1910	Pranke, August	248/515
	Е	US-2,559,421	07-1951	GARRETT JESSE M	248/515
	F	US-2,575,254	11-1951	BLAUGRUND MARVIN J	248/515
	G	US-2,628,796	02-1953	KRIZMAN MATTHEW F	248/515
	Н	US-2,628,797	02-1953	CAMPOMAR MIGUEL A	248/545
	ı	US-2,777,657	01-1957	ZENT LAWSON J	248/539
	J	US-4,022,233	05-1977	Grundman, Erwin W.	224/187
	К	US-6,378,539	04-2002	Allee, Edward	135/16
	L	US-6,533,237	03-2003	Matusek, Darwin D.	248/514
	М	US-			

### FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	GB 2045338 A	10-1980	United Kingdom	McFarlane, James	E05D 11/10
	0	JP 2003 88557 A	03-2003	Japan		
	Р					
	Q					
	R					
	s					
	Т					

### **NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	υ	
	٧	
	w	
	х	

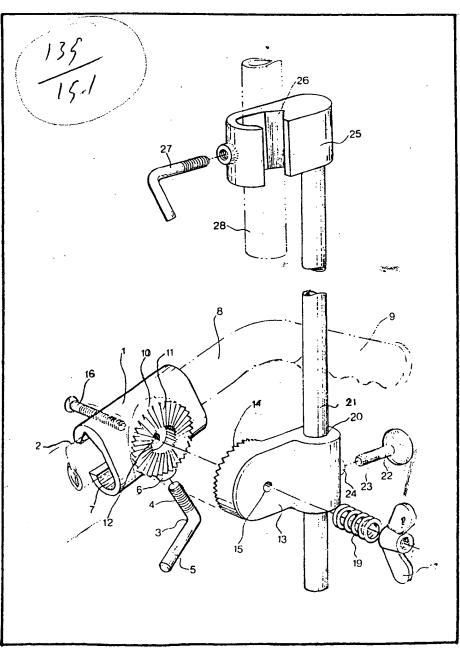
\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

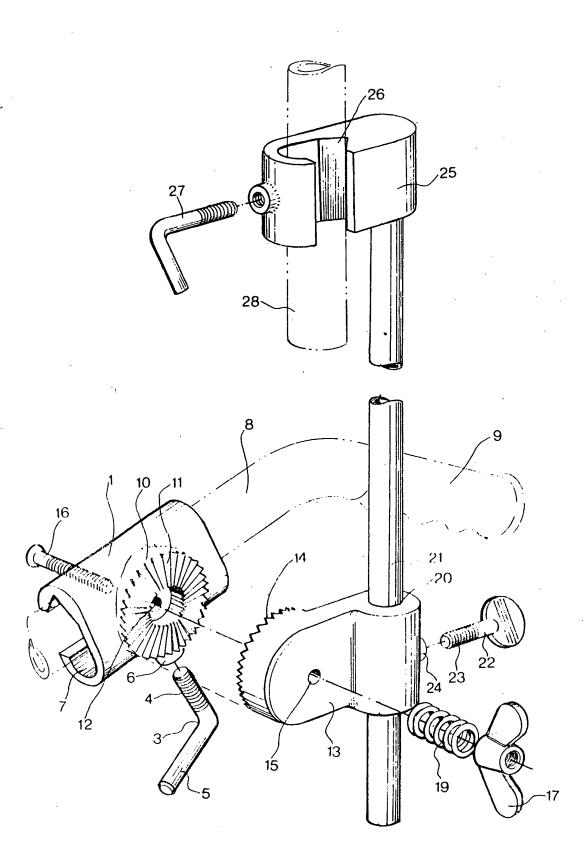
- (21) Application No 7944374
- (22) Date of filing 24 Dec 1979
- (30) Priority data
- (31) 7277/79
- (32) 5 Jan 1979
- (33) Australia (AU)
- > (43) Application published 29 Oct 1980
- (51) INT CL<sup>3</sup> E05D 11/10
- (52) Domestic classification E2F 110 630 673 AG A4P 1 5C
- (56) Documents cited
  - GB 1563807
  - GB 1527012
  - GB 1502414
  - GB 1444556
  - GB 1365920
  - GB 1362267
  - GB 1090770
  - GB 1035775
  - GB 980585
  - GB 877696
  - GB 456690
  - GB 324057
  - GB 277425
  - GB 245534
- (58) Field of search
  - A4H
  - A4P
  - A4U
  - E2A
  - E2F
- (71) Applicant
  Donald James McFarlane,
  27, Idaline Street,
  Collaroy Plateau, New
  South Wales, 2098,
  Australia
- (74) Agent
  Gill, Jennings & Every

### (54) An Umbrella Support

(57) An umbrella support particularly suitable for the clamping of a golf umbrella to a golf buggy or trundler so that the umbrella is supported above the buggy and may be tilted to a desired orientation. A clamp 1, located

on a handle shaft 8 of the golf buggy, is provided with a series of radial serrations 11, and a movable block 13 is provided with a series of cooperating radial serrations 14. The movable block 13 is slidable on a vertically orientated shaft 21 which is provided with a clamp 25 attached to an umbrella handle shaft 28.





### **SPECIFICATION** An Umbrella Support

This invention relates to an umbrella support and has been devised particularly though not 5 solely for the support of a golf umbrella.

At present golf trundlers or buggies are commonly provided with a holder for a golf umbrella in which the umbrella may be placed in the folded condition so that it will be ready for use 10 in the event of rain or strong sunshine. This arrangement has the disadvantage that should it rain the golfer must firstly remove the umbrella from the holder and then erect the umbrella which he must then hold over his head with one hand 15 while waiting to play or while moving from place to place on the golf course. This can be an awkward or difficult manoeuvre particularly when selecting golf clubs and furthermore the umbrella must be folded and replaced in the trundler or laid 20 on the ground while the golfer is making his shot.

It is therefore an object of the present invention to provide an umbrella support which will obviate or minimize the foregoing disadvantages in a simple yet effective manner or which will at least 25 provide the public with a useful choice.

Accordingly the invention consists in an umbrella support comprising a clamp arranged to engage a tubular member, support means adapted to support the handle of an umbrella and 30 adjustable connecting means between said support means and said clamp arranged to allow the inclination of said support means to be varied relative to said tubular member.

Notwithstanding any other forms that may fall 35 within its scope one preferred form of the invention will now be described by way of example only with reference to the accompanying drawing which is an exploded perspective view of an umbrella support according to the invention.

In the preferred form of the invention an umbrella support particularly adapted for use with a golf trundler to support a golfing umbrella is constructed as follows:

A clamp 1 is provided which may for example 45 be cast or moulded from a suitable metal or plastics material and which has a C-shaped crosssection having one end of the C formed to a Vshaped notch 2. A clamping screw 3 is provided having a threaded portion 4 and an operating 50 handle 5. The clamping screw is engaged with the 115 clamp by threading the threaded portion 4 into a bush 5 having a corresponding female threaded portion extending into the rounded end 6 of the Cshaped cross-section. The clamp may be then engaged with the tubular shaft 8 supporting the handle 9 of a golf trundler or buggy by engaging the clamp 1 over the tubular shaft so that the shaft nests in the V-notch 2 and tightening the clamping screw 3 until the end of the threaded portion 4 engages the side of the tubular shaft 8 opposite the V-notch 2 and firmly clamps the tubular shaft between the V-notch and the end of the clamping screw.

The side of the clamps opposite to the opening 65 in the C-shaped cross-section is provided with a raised circular surface 10 provided with a plurality of radial serrations 11 extending outwardly from a hole 12 through the centre of the raised portion. A mounting block 13 is provided which may also be 70 cast or molded from a suitable metal or plastics materials and which has a matching mating face 14 having radial serrations corresponding to the radial serrations 11. A hole 15 is formed through the mounting block in the centre of the radial serrations. A threaded bolt 16 is provided which is passed through the hole 12 and then through the hole 15 and secured by a wing nut 17 spaced from the face 18 of the mounting block by a compression spring 19. The wing nut is tightened 80 to hold the two mating faces 11 and 14 into engagement with the radial serrations of one mating with the radial serrations of the other. It will be appreciated that the wing nut 17 may be tightened to such a degree that any pivotal 85 movement of the mounting block 18 about the bolt 16 is extremely difficult or that the wing nut may be loosened to a point where the mounting block may be held firmly at a desired inclination about the bolt by the engagement of the radial 90 serrations but so that the mounting block may be rotated about the bolt causing one set of serrations to ride up over the other set until a desired relative inclination is achieved between

the mounting block 13 and the clamp 1. The mounting block is provided with an 95 aperture 20 arranged to form a sliding fit with a pole or shaft 21 which may for example be a length of aluminium tubing. The shaft 21 is held in place in the mounting block in a desired axial 100 position by way of a clamping bolt 22 having a threaded end 23 which engages with a female thread in a bush 24 extending through the mounting block to radially enter the hole 20.

Support means in the form of a support clamp 105 25 is provided at the upper end of the shaft 21 and may for example comprise a similar clamp to the clamp 1. The support clamp has a V-notch 26 and a clamping bolt 27 which engage and support the shaft 28 of an umbrella handle. The support 110 clamp may also be formed by casting or molding from a suitable metal or plastics material.

In use the clamp 1 is engaged with the handle of a buggy or trundler as previously described and the inclination of the mounting block 13 is adjusted so that the shaft 21 is held at a desired inclination which may for example be vertical. The handle 28 of an umbrella is clamped in the support clamp 25 and the height of the shaft 21 is adjusted using the clamping bolt 22 so that the umbrella is positioned in the desired location above the golf trundler and/or the operator. The umbrella may be supported in this position while the trundler is stationary for example while the player is selecting his clubs or waiting to make his shot. When the golfer wishes to move his trundler the shaft 21 may simply be tilted against the engaging action of the mating serrations 11 and 14 so that the mating faces part slightly against

120

125

the action of the spring 19 and the teeth of one set of serrations ride over the teeth of the other until the shaft and therefore the umbrella has been tilted into a desired position for protecting the golfer while the trundler or buggy is being moved. Once the location for playing the next shot has been reached the umbrella may be tilted once more to the previous position as required.

When the golfer wishes to play his shot he
needs to merely step out from beneath the
umbrella, play the shot and immediately step back
into shelter beneath the umbrella. At all times the
trundler, golf bag and golf clubs remain sheltered
from the rain and it is unnecessary for the golfer
to erect or fold the umbrella and to place it down

while playing his shot.

Although the invention has been described for the support of a golf umbrella on a trundler it will be apparent that the umbrella support may be used in other locations where it is desired to support an umbrella which may be conveniently clamped onto a tubular framework.

### Claims

Various aspects of the present invention to 25 which particular attention is directed are listed in the following paragraphs, viz:—

A. An umbrella support comprising a clamp adapted to engage a tubular member, support means adapted to support the handle of an 30 umbrella and adjustable connecting means between said support means and said clamp arranged to allow the inclination of said support means to be varied relative to said tubular member.

- 35 B. An umbrella support as described in paragraph A, wherein said adjustable connecting means incorporates a pivot adapted to be used with the axis of the pivot in a substantially horizontal plane.
- 40 C. An umbrella support as described in paragraph B, wherein holding means are provided in conjunction with said pivot, arranged to hold said support means at a desired inclination to said clamp.
- D. An umbrella support as described in paragraph C, wherein a mounting block is provided pivotally mounted on said clamp by way of said pivot, and wherein said holding means comprise mating faces on said clamp and on said mounting block held in contact with one another by tension means.

E. An umbrella support as described in paragraph D, wherein said mating faces are provided with complementary radial serrations radiating outwardly from the axis of said pivot.

F. An umbrella support as described in paragraph D or paragraph E, wherein said pivot comprises a threaded shaft and said tension means comprise a nut threadedly engaged on said shaft and adjustable to alter the contact pressure between said mating faces.

G. An umbrella support as described in paragraph F, wherein said tension means includes a compression spring axially mounted on said 65 shaft and compressible by said nut.

H. An umbrella support as described in paragraph E, paragraph F or paragraph G, wherein said support means include a support clamp adapted to engage an umbrella, said support
70 clamp being mounted on a shaft slidably mounted in said mounting block.

I. An umbrella support when constructed arranged and operable substantially as described herein with reference to the accompanying

75 drawings.

J. Golf umbrella support means comprising mount means adapted to hold a golf umbrella in an open position above a golf buggy or trundler.

K. An umbrella support as described in
 paragraph J, wherein the mounting means is as described in any of paragraphs A to I above.

New Claims filed on 11-1-80 Superseded claims A-K inc. New Claims:— 1—11 inc.

### 85 Claims

125

1. An umbrella support comprising a clamp adapted to engage a tubular member, support means adapted to support the handle of an umbrella and adjustable connecting means

90 between said support means and said clamp arranged to allow the inclination of said support means to be varied relative to said tubular member.

An umbrella support as claimed in claim 1
 wherein said adjustable connecting means incorporates a pivot adapted to be used with the axis of the pivot in a substantially horizontal plane.

 An umbrella support as claimed in claim 2
 wherein holding means are provided in conjunction with said pivot, arranged to hold said support means at a desired inclination to said clamp.

4. An umbrella support as claimed in claim 3
wherein a mounting block is provided pivotally
mounted on said clamp by way of said pivot, and
wherein said holding means comprise mating
faces on said clamp and on said mounting block
held in contact with one another by tension
means.

5. An umbrella support as claimed in claim 4 wherein said mating faces are provided with mating radial serrations radiating outwardly from the axis of said pivot.

115 6. An umbrella support as claimed in either claim 4 or claim 5 wherein said pivot comprises a threaded shaft and said tension means comprise a nut threadedly engaged on said shaft and adjustable to alter the contact pressure between said mating faces.

7. An umbrella support as claimed in claim 6 wherein said tension means includes a compression spring axially mounted on said shaft and compressible by said nut.

8. An umbrella support as claimed in any one of claims 4 to 7 wherein said support means include a support clamp adapted to engage an

umbrella, said support clamp being mounted on a shaft slidably mounted in said mounting block.

9. An umbrella support when constructed arranged and operable substantially as described5 herein with reference to the accompanying drawings.

10. Golf umbrella support means comprising

mounting means adapted to hold a golf umbrella in an open position above a golf buggy or trundler.

10 11. Golf umbrella support means as claimed in claim 10 wherein said mounting means comprise an umbrella support as claimed in any one of claims 1 to 9.

Printed for Her Majesty's Stationery Office by the Courier Press, Learnington Spa, 1980. Published by the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.

### (19)日本国特許庁 (JP)

# (12) 公開特許公報(A)

(11)特許出願公開番号 特開2003-88557

(P2003-88557A)

(43)公開日 平成15年3月25日(2003.3.25)

(51) Int.Cl.7		識別記号	FΙ		テーマコート*(参考)
A 6 1 G	5/00	503	A 6 1 G	5/00	503
	5/04	506		5/04	506
B 6 2 J	11/00		B 6 2 J	11/00	E

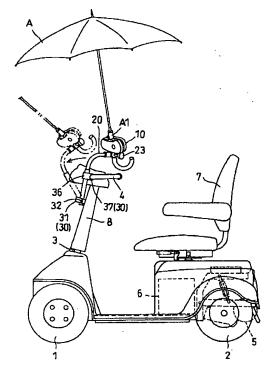
	·	審查請求	未請求 請求項の数2 OL (全 5 頁)
(21)出願番号	特願2001-287064(P2001-287064)	(71)出願人	000001052 株式会社クボタ
(22)出顧日	平成13年9月20日(2001.9.20)		大阪府大阪市浪速区敷津東一丁目2番47号
		(72)発明者	木村 重則 大阪府堺市石津北町64番地 株式会社クポ 夕堺製造所内
	·	(72)発明者	三平 恵一 大阪府堺市石津北町64番地 株式会社クポ タ堺製造所内
		(74)代理人	100107308 弁理士 北村 修一郎
			最終頁に続く

## (54) 【発明の名称】 小型電動車用の支持装置

### (57)【要約】

【課題】 傘やステッキを操縦座席から取出しやすいよ うに、かつ、操縦者が当っても破損しにくいように小型 電動車に取付けられる支持装置を提供する。

【解決手段】 傘又はステッキをホルダー10によって 支持する支持部材20を備えてある。支持部材20の基 端部が連結ピン32によって回動自在に連結している取 付け部材31を電動車のハンドルカバー8にボルト連結 し、保持手段36を備えた取付け部材37を操縦ハンド ルバー4に連結して、電動車に取付ける。支持部材20 の遊端側を保持手段36に嵌め込むと、支持部材20は 使用位置になる。使用位置にある支持部材20に車体後 方側から設定値以上の操作力が加わると、支持部材20 は保持手段36から外れて車体前方側に回動し、取付け 部材31のストッパー部に当接した退避位置になる。



7/15/2005, EAST Version: 2.0.1.4

5

【図3】支持装置を装着し、	ステッキを保持させた状態
の小型電動車の側面図	

【図4】支持装置の平面図

電動車の正面図

【図5】ホルダーの平面図

【図6】取付け部材の側面図

【図7】取付け部材の平面図

【図8】支持装置の平面図

【符号の説明】

7 操縦座席

20 支持部材

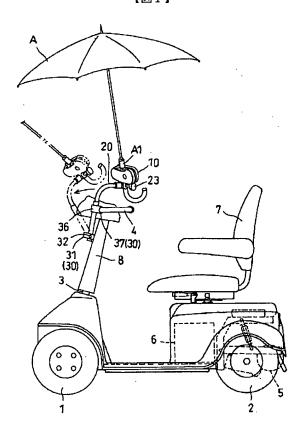
30 取付け手段 31c ストッパー部

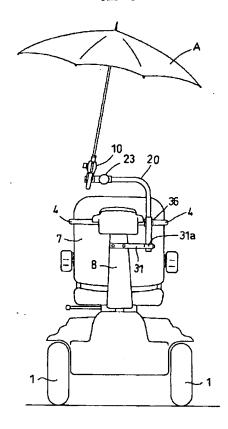
32 連結手段

36 保持手段

【図1】

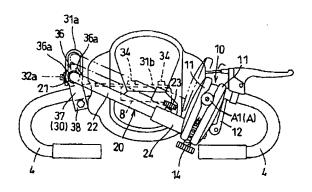
【図2】

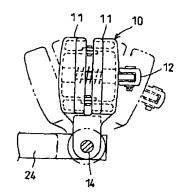




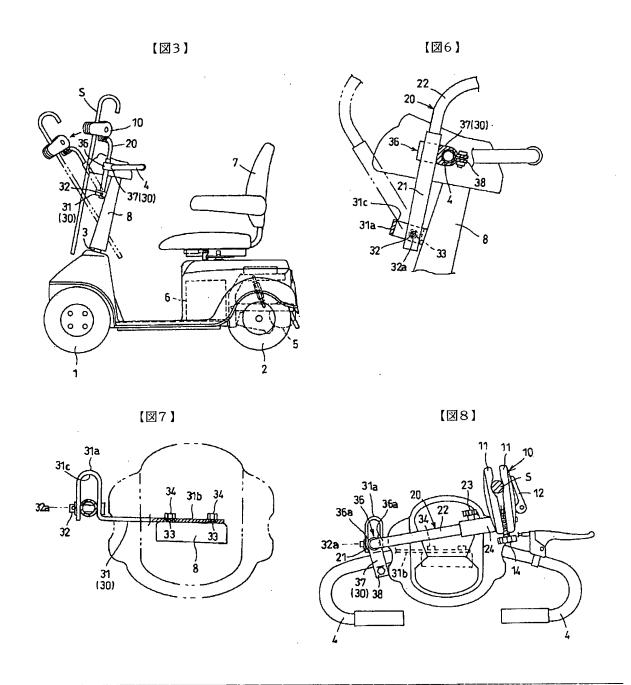
【図4】

【図5】





7/15/2005, EAST Version: 2.0.1.4



フロントページの続き

(72)発明者 久保 信之 東大阪市水走2丁目2番27号 大和精工株 式会社内